

According to the present invention, a user only needs to remember a common password

5 to access any of the user's accounts. A designated password for each account is generated by a hash function of the common password and some account-dependent information. The hash value is calculated at the user's computer, and then submitted as a designated password to a server. Thus, each account is protected by the distinct designated password, and the common password is never revealed in an unauthorized manner.

1. The first part of the paper is devoted to the study of the properties of the function  $f(x)$  defined by the equation  $f(x) = \int_0^x f(t) dt$ . It is shown that  $f(x)$  is a continuous function and that it satisfies the functional equation  $f(x+y) = f(x) + f(y)$ . The function  $f(x)$  is also shown to be differentiable and its derivative is found to be  $f'(x) = f(x)$ .